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State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

June 30, 2015

Karin Odendahl, Resident Agent
West Ridge Resources, Inc.
P.O. Box 910
East Carbon, Utah 84520-0910

Subject: 2014 Annual Report Review Completion, West Ridge Mine, C/007/0041, Task ID #4802

Dear Ms. Odendahl:

The Division staff has completed the review of the 2014 Annual Report. There are commitments required by the approved MRP that are outstanding. Enclosed is a copy of the review with each reviewer's comments which discuss the deficiencies in more detail.

In general, the following commitments have not been met:

1. A subsidence map or summary report was not provided as required by Volume 2 Chapter 5 page 5-23 through 5-26. The Permittee must submit a subsidence contoured map or map detailing the location of the various monitoring points for reference to meet the state annual commitments outlined within the MRP.

2. The mine map lacks any timing projection information. The mine map does not meet the Division's annual requirements to show at least five years of projected mining annually.

3. It is not clear if raptors were protected as required by Chapter 3, Page 3-8 and 3-9. The mine map has no indication of timing and the raptor survey map does not include areas of subsidence. There is not a map of projected mining for upcoming years. A map with the above mentioned information is required to make a valid determination of past and future potential impacts. Also, provide a written narrative, such as the one provided in the 2012 annual report from EIS Environmental, summarizing results of the raptor survey.

Please submit the listed information to the Division by July 30, 2015.

Thank you for your diligence in completing the Annual Report. If you have any questions, please call me at (801) 538-5350.

Sincerely,

Steve Christensen
Permit Supervisor

SKC/sqs
Enclosure
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UTAH DNR OIL, GAS & MINING

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Annual Report

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

GENERAL INFORMATION

Company Name	West Ridge Resources	Mine Name	West Ridge Mine
Permit Number	C/007/0041	Permit expiration Date	
Operator Name		Phone Number	
Mailing Address		Email	
City			
State		Zip Code	

		DOGM File Location or Annual Report Location
Excess Spoil Piles	☐ Required ☒ Not Required	
Refuse Piles	☐ Required ☐ Not Required	
Impoundments	☒ Required ☐ Not Required	Sediment Pond Annual Certification Included
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS ☒ Met Requirements ☐ Did Not meet Requirements

The annual Impoundment Inspection and Certified Report was provided. An inspection of the impoundments at the West Ridge Mine was conducted on November 19th, 2014 by Karin Odendahl and certified by Jay Marshall (P.E. stamped 11/19/2014). Based on the information provided in that report, the upper impoundment cell (Cell A) has surpassed the 60% clean-out elevation as established in the approved Mining and Reclamation Plan (MRP). On page 7-72, the MRP states "...the sediment will be cleaned out when the storage capacity reaches 60%." The annual impoundment inspection report submitted by the Permittee indicates that the sediment level in Cell A (Upper) is 6,943.8'. The 60% clean-out elevation is identified in Appendix 7-4 and Map 7-4 as 6,942.8'. Based on this information, Cell A (Upper) needs to be cleaned-out as soon as possible. Based on the information provided, the sediment level in Cell B (Lower) is

approximately 0.6' below the clean-out elevation. Based on communications between the Permittee and Division Inspector Karl Houskeeper, the sediment pond is slated for cleaning in late summer/early fall. (SKC- June 25th, 2015)

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If additional written response is required, it should be filed as an attachment to this report.

Title: EXPERIMENTAL FIELD TRIALS
Objective: Monitoring to support proposed experimental practice. Provide a comparison of growth on field trials with Douglas/Fir reference area.
Frequency: Annual evaluation in June
Status: Ongoing
Reports: Provide in annual report
Citation: MRP, Volume 1, Appendix 2-6 and Volume A, Map 2-4

Operator Comments

The required Vegetation Monitoring at the Experimental Test Plot prepared by Mt. Nebo Scientific, is included.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

The vegetation monitoring has been completed in accordance with the MRP. The vegetation monitoring report begins on page 16 of the electronic annual report.
Results for the 2014 sample period were similar to the previous years. Like previous years, stinging nettle is prevalent with Lewis flax being the most important forb. Grasses appear to be successful and there is no woody species present, which is to be expected. Total living cover is comparable between reference area and reclaimed plots. All plots meet or exceed expectations based upon the reference area comparison.
Also reviewed by Priscilla Burton 3/11/2015. Stinging nettle Urtica doica has spread to all plots and was found in the transects at a 40 - 90% frequency. The most prevalent grass across all plots is thickspike wheatgrass, Elymus lanceolatus. Most interesting is the vegetative cover as northern sweetvetch, Hedysarum boreale, which was seeded at 1.5 #PLS/acre has been reduced from a level of 10% in 2009 down to 1 - 2% of the cover in 2014 on the Strych and Midfork stockpile plots and was not a species of note in the other plots . The related plant Canyon Sweetvetch, Hedysarum occidentale var. canone, was collected from the site before its disturbance and was seeded with the purchased seed, according to a statement in the 2005 Annual Report.)

Title: SOIL SAMPLING OF FILL AT T1, T2 AND T3
Objective: To protect buried substitute topsoil in the fill. Collect a composite sample from several locations near each site to obtain a more average value.
Frequency: Annual evaluation during field season.
Status: Ongoing beginning in 2010.
Reports: Annual report
Citation: MRP, Volume 1, Appendix 2-6 addendum and Volume A, Map 2-4

Operator Comments

The Soil Sampling of Fill at T1, T2 and T3 prepared by Mr. Nebo Scientific is included.

Reviewer Comments ☒ Met Requirements ☐ Did Not Meet Requirements

Reviewed by Priscilla Burton 3/11/2015. Samples were collected in 2014 and analyzed by the BYU Soil and Plant Laboratory. The results have been analyzed over time at each sampling location and over all sampling locations. The three soil locations T1, T2 and T3 have been sampled eight times since 2001. In 2010, the locations were identified using a handheld GPS unit. The samples are taken from a depth of 6 - 12 inches. There is very little variability in pH at each location and little variability between locations in pH. The EC. SAR and CaCO3 percentage are more variable at each location and between locations. Location T3 continues to be affected by road salt. Surface soils from this location should be buried in the fill.

Title: SUBSIDENCE MONITORING

Objective: To monitor subsidence from longwall mining practices. Subsidence monitoring of panels until the effects of mining have stabilized and vertical movement is less than six inches per year.

Frequency: annual

Status: Ongoing

Reports: annual report

Citation: MRP, Volume 2, Chapter 5, page 5-23b to 5-23e

Operator Comments

Subsidence Monitoring information is included.

Reviewer Comments ☐ Met Requirements ☒ Did Not Meet Requirements

The Permittee included four various subsidence summary tables with the annual report. The first table shows the differential level survey completed in November 19, 2014. The data shows that there was minimal to zero movement at monitoring points C-1 through C-7. The second table shows the straight line survey from a control point to monitoring wells MW-1 through MW-7. The data shows that there was minimal movement between the monitoring wells. The variance in the range of movement observed in the differential and straight line survey tables can be attributed to the margin of error for the equipment and method used to conducted the subsidence survey. The third table supplied in the annual report details the GPS Subsidence survey for four points. The maximum overall subsidence seen at all the points since 2005 is 0.51 ft. The overall average subsidence of 0.5 ft was observed between points 12, 13, and 14 since September 2005. The final table details the GPS subsidence survey for Whitmore Canyon's left and right forks. The right fork has seen an average subsidence of zero since 2012, with a maximum subsidence of 0.11 ft at point RF 2. The left fork saw an average upheaval of 0.21 ft, with the maximum subsidence of 0.02 ft. LF 9 details an upheaval of three feet since 2012 which is believed to be a typo. The summary of the tables may be submitted as a subsidence report for West Ridge Resources annual commitments, however, a subsidence contour map or map detailing the location of the stated monitoring points within the four tables needs to also be included at a minimum. (CP)

The Permittee has not addressed the requirements of this commitment as detail within the West Ridge MRP Volume 2 Chapter 5 page 5-23 through 5-26 by not including a subsidence map or summary report. The MRP details that a photogrammetic subsidence readings will be contoured into a map to depict the net change in elevation of the area within the Permit Area. The MRP details that in October 2000 thirteen permanent subsidence monitoring control points were established and that West Ridge resources would continue to conduct annual surveys in the fall of each year to monitor the surface effects of subsidence. The Permittee will submit a subsidence contoured map or map detailing the location of the various monitoring points for reference to meet the state annual commitments outlined within the MRP. (CP)

FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

Title: RECLAMATION MONITORING
Objective: Visually assess the revegetation success.
Frequency: Quarterly for the first three years and annually in June of each year thereafter
Status: Implement at reclamation
Reports: Annual Report
Citation: MRP, Volume 1, Chapter 3, page 3-16, paragraph 2

Title: MEXICAN SPOTTED OWL SURVEY
Objective: Conduct appropriate surveys for Mexican spotted owls on the lease tract areas with 40 percent or greater slopes, cliff habitat areas, riparian habitats, and mixed conifer forest habitats, prior to any future surface disturbing activity and/or any mining activity with the potential to interrupt surface spring flows. Inventory work must be conducted by parties approved and permitted for such survey work by the Fish and Wildlife Service and qualified in accordance with R645-301-132. Surveys must follow current protocol established by Fish and wildlife service.
Frequency: As needed
Status: ongoing
Reports: Annual
Citation: Permit condition attachment A, special condition #3.

Title: SOIL SAMPLING OF FINAL GRADED FILL AT CATCHMENTS A, C AND E
Objective: At final reclamation, the reclaimed surface soils of the catchments will be tested for pH, EC and SAR to allow for the evaluation of the salinity and the need for a revision or addition to the final seed mix to enhance germination and establishment.
Frequency: Once after final grading
Status: Future commitment
Reports: Provide information to the Division
Citation: MRP, Volume 2, Appendix 5-15, Attachment 9, page 14

OPERATOR COMMENTS (OPTIONAL)

REVIEWER COMMENTS

NA- As the mine is still active the commitments relative to reclamation (i.e. reclamation monitoring and soil sampling) do not apply. (SC 6/26/2015)

REPORTING OF OTHER TECHNICAL DATA

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

Reviewer Comments

Raptor Surveys
Citation: MRP, Chapter 3, Page 3-8 & 3-9
Locations within the permit area that contain potential raptor nesting habitat will be surveyed in the field within one year of any proposed mining activity that could result in subsidence. Should any nests be found, WEST RIDGE Resources, Inc. would consult with the Division (DOGM), the Division of Wildlife Resources and the U.S. Fish and Wildlife Service.
Reviewer Comments: Did Not Meet Requirements

A 2014 mine map and raptor survey spreadsheet and raptor survey map were provided. However, it is almost impossible to determine if subsidence impacted raptors due to the rawness of the data and lack of any written analysis. Raw survey data for subsidence is also provided but a map is not included. The mine map has no indication of timing of mining and the raptor survey map does not include areas of subsidence. There is not a map of projected mining for upcoming years.

The Permittee must provide a map or shapefiles with the following information. 1.Boundaries of panels that were mined the year of the report and those that will be mined the following year. The panels must indicate when they are mined such as by year. 2. Raptor monitoring locations with results, which overlays the panels. 3.Subsidence that overlays the mined panels. This information will allow one to determine if raptor habitat has been or could be subsided and if mitigation is warranted. Also, provide a written narrative, such as the one provided in the 2012 annual report from EIS Environmental, summarizing results of the raptor survey.

As noted in the 2012 Annual Report comments from Ingrid Campbell. Raw data without maps or narratives are not acceptable. A map containing both raptor nests and mine panels as well as an explanation of the predicted impact of mining to nests is required to adequately determine if mining has impacts raptors. (Lisa Reinhart)

MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual subsidence map		☐	☒	☐	☒
Mine Map		☐	☒	☐	☒
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

Reviewer Comments ☐ Met Requirements ☒ Did Not Meet Requirements

The Permittee did not include a mine map with the approximate dates associated with panels to be mined. Planned mining operations are shown on the supplied mine map but lack any timing projection information. The mine map does not meet the Division's annual requirements to show at least five years of projected mining annually. (CP)